

ABSTRACT

A multi-wire saw according to the present invention cuts a workpiece while supplying a slurry containing an alkali or mixed acid to a cutting interface between the workpiece and a wire, and includes: a storage tank with a heating mechanism for storing and heating the slurry; a thermal insulating pipe for transporting the slurry sent with a pump from the storage tank with a heating mechanism to a position before a position where the wire is incorporated into the workpiece, while keeping the slurry at a predetermined temperature; a thermostat for keeping a temperature in a vicinity of the workpiece fixed to a stage at the predetermined temperature; and a wire heating mechanism for heating the wire to the predetermined temperature. Consequently, the cutting resistance decreases during cutting machining of a silicon ingot, and the variation in the cutting resistance also decreases, whereby a high-quality wafer can be obtained at a high efficiency and a low cost.